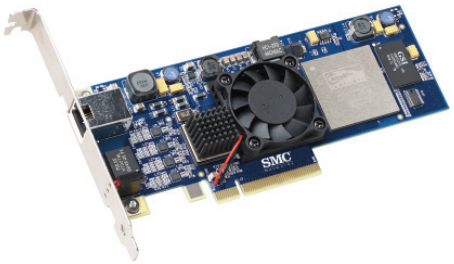
NETWORK ADAPTERS

SMC10GPCIe-10BT

Tiger Card™ 10G PCIe 10GbE 10GBASE-T Server Adapter



OVERVIEW

The SMC Tiger Card™ 10G (SMC10GPCIe-10BT) is a 10 gigabit Ethernet server adapter that runs on a high speed PCIe x8 host bus interface. It is the industry's first 10GBASE-T server adapter that combines the speed and performance of the latest technology with the simple integration of traditional Ethernet over copper.

The growth and expansion of networking environments that contain highly complex applications that create and transfer huge files, such as high performance computing (HPC), database clusters, and video on demand will require higher bandwidth on the network. The extremely low latency and high throughput of the SMC Tiger Card™ 10G server adapter family makes it the best solution for these applications.

In today's challenging data center environment, thermal management is a hot topic. With the industry's lowest power consumption, the SMC10GPCIe-10BT delivers compelling performance, resulting in a flexible server adapter, system and ultimately data center design. The advanced architecture supports the demand for Virtualization enabling servers to work at their most optimal levels. The SMC10GPCIe-10BT is a half-height card with brackets for half- or full- height, which offers flexibility for server installation.

10GBASE-T reduces the cost of deployment and maintnance by leveraging the advantages of UTP, used in thousands of data centers world-wide. With SMC's exceptional 10GBASE-T technology, enterprises can now cost effectively deploy 10G Ethernet and extract maximum value from their infrastructure. The SMC10GPCIe-10BT is the true cost effective solution of enterprise computing.

The SMC Tiger Card™ 10G Server Adapter family delivers the balance of performance, power and price. This balance is driving the widespread adoption of 10-gigabit Ethernet throughout data centers and enterprise networks world-wide.

FEATURES	BENEFITS
Virtual NIC support	The core of SMC's technology. Protected VNIC interfaces can be instantiated for each running guest operating system or application, giving it a direct pipeline to the Ethernet network. This architecture provides the most efficient way to maximize network and CPU efficiency. The SMC Ethernet controller supports up to 4096 VNIC interfaces.
IP/UDP/TCP checksum offload	Calculation and validation for the checksums found in IP, TCP and UDP headers. This feature saves a significant amount of valuable CPU cycles.
Stateless Offloads	TCP Segmentation Offload (TSO) for IPv4.
Plug-and-play	Provides binary compatibility with all data center and HPC applications.
Jumbo frame support (9K)	Smaller per packet overhead, increased network utilization.
MSI	MSI support enables higher levels of performance on both legacy and up-to-date systems.
Remote boot	Support for etherboot, PXE boot, and Linux® BIOS provides flexibility in cluster design and diskless servers. A small programmable on-board ROM contains the boot code which provides this functionality.
IP flow filtering	Enables the hardware to steer packets based on IP, TCP and UDP header contents.
Transmit rate pacing (per queue)	Provides a mechanism for enforcing bandwidth quotas across all guest operating systems. Software re-programmable on-the-fly to allow for adjustment as congestion increases on the network.
PCI Express 1.1 x8 Host Bus Interface	Provide maximum host bus bandwidth.

TECHNICAL SPECIFICATIONS

SMC10GPCIe-10BT

STANDARDS
- IEEE 802.3an 10GBASE-T
- IEEE 802.3x Flow Control
- IEEE 802.1p Priority
- IEEE 802.1Q VLAN tagging

INTERFACES
- 1 Cat6a RJ-45
  - Cat5e up to 45 meters
  - Cat6 up to 55 meters
  - Cat6a up to 100 meters
  - Cat7 up to 100 meters

NETWORK MANAGEMENT
- SNMP
- ACPI
- Remote boot

ADVANCED SOFTWARE FEATURES
- Virtual NIC support (hypervisor bypass)
- ISCSI support
- IP/UDP/TCP checksum offload
- TCP segmentation/large send and receive offload
- Interrupt moderation
- Transmit rate pacing (per queue)
- Jumbo frame support
- Remote boot
- IP flow filtering

SYSTEM INTERFACE
- PCI Express 1.1 x8

INTERRUPT LEVEL
- MSI

FULL DUPLEX
- 10Gbps (20Gps)

POWER CONSUMPTION
- 16 Watts with full traffic

LED INDICATOR
- Three (Fault, Link and Activity)

OPERATING SYSTEMs
- Linux® 2.4 Kernels (32 bit and 64 bit)
- Linux® 2.6 Kernels (32 bit and 64 bit)
- Windows® Server 2003 (32 bit and 64 bit)
- Windows® Vista (32 bit and 64 bit)
- XenSource 3.2

TEMPERATURE
- 0o to 55o C / 32o to 122o F (Standard Operating)

OPERATING HUMIDITY
- 10% to 90% (Non-condensing)

DIMENSIONS (without bracket)
- 6.57 x 2.72 in
- 167 x 69 mm

WEIGHT
- 0.3 lbs
- 136g

CERTIFICATIONS
- FCC Class A
- CE Mark
- RoHs Compliant

PACKAGE CONTENTS
- SMC Tiger CardTM 10G SMC10GPCIe-10BT
- User Manual
- Drivers and Documentation CD
- SMC Warranty Registration Card
- Low Profile Bracket

WARRANTY
- Limited Lifetime

CONTACT

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